

	Search Terms
1	BIN
2	BINS
3	GRAIN
4	GRAINS
5	MONITOR
6	MONITORED
7	MONITORED
8	MONITORING
9	MONITORINGS
10	MONITORS
11	SENSED
12	SENSEDS
13	SENSING
14	SENSINGS
15	SENSOR
16	SENSORS
17	TEMP
18	TEMPERATURE
19	TEMPERATURES
20	TEMPS
21	TRANSDUCER
22	TRANSDUCERS
23	TRANSMITTED
24	TRANSMITTEDS
25	TRANSMITTER
26	TRANSMITTERS
27	TRANSMITTING
28	TRANSMITTINGS
29	((BIN SAME GRAIN) SAME (SENSED OR MONITORED OR MONITORING OR TRANSMITTER OR MONITOR OR TRANSDUCER OR SENSING OR TRANSMITTING OR TRANSMITTED OR SENSOR)) AND TEMPERATURE)

	Total	US-PGPUB	USPAT	USOCR	EPO	JPO	Derwent	IBM TDB
1	101482							
2	35936							
3	329729							
4	176322							
5	672082							
6	404178							
7	0							
8	641798							
9	188							
10	236660							
11	279733							
12	3							
13	536717							
14	1071							
15	1264236							
16	500301							
17	844576							
18	3300664							
19	1074952							
20	79667							
21	272268							
22	116290							
23	1507889							
24	6							
25	400550							
26	83408							
27	965525							
28	15							
29	182							

	U	1	Document ID	Issue Date	Pages	Title	Current OR
1	X		US 20050004682 A1	20050106	34	Computer-assisted management of the processing of an agricultural product	700/9
2	X		US 20040236267 A1	20041125		Disinfection, destruction of neoplastic growth, and sterilization by differential absorption of electromagnetic energy	604/20
3	X		US 20040154184 A1	20040812		Full heat moving target grain drying system	34/391
4	X		US 20040148057 A1	20040729		Vehicular exterior identification and monitoring system-agricultural product distribution	700/242
5	X		US 20040031335 A1	20040219	180	Bulk materials management apparatus and method	73/865
6	X		US 20030227382 A1	20031211		Low power remote asset monitoring	340/539.13
7	X		US 20030217596 A1	20031127		Level sensor and control	73/149
8	X		US 20030214310 A1	20031120		Planar capacitive transducer	324/658
9	X		US 20030079365 A1	20030501		Apparatus and method for monitoring drying of an agricultural porous medium such as grain or seed	34/89
10	X		US 20030033057 A1	20030213		Grain aeration systems and techniques	700/277
11	X		US 20030027186 A1	20030206		Differential photochemical & photomechanical processing	435/6
12	X		US 20020185605 A1	20021212		Sensor output analog processing-A microcontroller-based insect monitoring system	250/341.7
13	X		US 20020121905 A1	20020905		Container level monitoring system	324/602
14	X		US 20010038876 A1	20011108		APPARATUS AND METHOD FOR PRODUCING GRAIN BASED BAKER FOOD PRODUCTS	426/549

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
1	705/1		Gaddis, David Alan et al.								US 20050004682	
2	607/86		Pierce, Brian N.									
3			Bloemendaal, Brent J.									
4	111/200; 239/62; 342/70; 700/283		Breed, David S. et al.									
5			Fromme, Guy A. et al.								US 20040031335	
6	340/568.1		Breed, David S.									
7			Dirksen, Larry E.									
8			McIntosh, Robert B.									
9	34/524		Corak, Steven J. et al.									
10	34/524; 705/4; 705/400		Kallestad, Daniel									
11	435/7.1; 702/19; 702/20		Pierce, Brian N.									
12			Shuman, Dennis et al.									
13			Salmon, Robert James JR.									
14			ANDERSON, RICHARD M.									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
15	X		US 6845326 B1	20050118		Optical sensor for analyzing a stream of an agricultural product to determine its constituents	702/22
16	X		US 6842018 B2	20050111		Planar capacitive transducer	324/664
17	X		US 6834443 B2	20041228		Full heat moving target grain drying system	34/491
18	X		US 6747461 B2	20040608		Apparatus and method for monitoring drying of an agricultural porous medium such as grain or seed	324/643
19	X		US 6732580 B2	20040511		Level sensor and control	73/149
20	X		US 6707384 B1	20040316		Sensor output analog processing--A microcontroller-based insect monitoring system	340/573.2
21	X		US 6608491 B2	20030819		Container level monitoring system	324/699
22	X		US 6530160 B1	20030311		Method and means for grain drying optimization	34/418
23	X		US 6362632 B1	20020326		Balanced charge pump capacitive material sensor	324/661
24	X		US 6167638 B1	20010102		Drying of grain and other particulate materials	34/474

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
15	250/339.02;		Panigrahi; Suranjan et al.									
	250/339.11;											
	250/339.12;											
	356/141.3;											
	356/300;											
	356/73.1;											
	702/134;											
16	702/33;		McIntosh; Robert B.									
	702/40;											
	702/49											
17	324/658;		Bloemendaal; Brent J.									
	73/335.04											
	34/165;											
	34/524;											
18	34/554		Corak; Steven J. et al.									
	73/73											
19	73/290B;		Dirksen; Larry E.									
	73/296;											
	73/309;											
	73/310											
20	250/336.1;		Shuman; Dennis et al.									
	250/338.1;											
	340/540;											
	340/566											
21	222/64;		Salmon, Jr.; Robert James									
	73/304R											
22	34/495		Gookins; William L.									
23	324/629;		Livingston; Richard A.									
	324/678;											
	327/517;											
	73/304C											
24	34/168;		Vavro; Matthew E. et al.									
	34/475;											
	34/493											

	U	1	Document ID	Issue Date	Pages	Title	Current OR
25	X		US 6158147 A	20001212		Method and apparatus for drying of grain and other particulates using a membrane	34/474
26	X		US 6144295 A	20001107		Automatic central tire inflation system	340/442
27	X		US 5976594 A	19991102		System and process for producing feed from food waste	426/285
28	X		US 5960558 A	19991005		Grain drying system and method	34/495
29	X		US 5957773 A	19990928		Method and apparatus for measuring grain characteristics	460/7
30	X		US 5709344 A	19980120		Grain de-acidizing process	241/7
31	X		US 5675065 A	19971007		Synthetic corn hybrid LP39	800/271
32	X		US 5664402 A	19970909		Method and means for harvesting and packaging seeds	53/384.1
33	X		US 5651193 A	19970729		Grain dryer and control system therefor	34/531
34	X		US 5646404 A	19970708		Electronic grain probe insect counter (EGPIC)	250/338.1
35	X		US 5616851 A	19970401		Ex-situ grain moisture analyzer for a combine	73/29.01

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
25	34/168; 34/475; 34/493		Smith; Kevin W. et al.									
26	137/224; 141/38; 340/443; 73/146.3; 73/146.5		Adams; Brian et al.									
27	241/39; 241/98; 426/454; 426/518; 426/519; 426/635; 99/503		LaFollette; John									
28	34/491; 34/493; 34/77		Bourgault; Pierre									
29	460/149; 56/10.2B		Olmsted; Thomas R. et al.									
30	241/8; 241/9		Archer; Virgil Louis									
31	435/412; 47/DIG.1; 800/320.1		Bergquist; Richard R.									
32	53/385.1; 53/389.2; 53/391		Sandvik; Arlan W. et al.									
33	34/535; 34/562; 34/572		Rhodes; Virgil O. et al.									
34	250/358.1		Litzkow; Carl A. et al.									
35	460/7; 56/1; 73/335.03		McMahon; Mike et al.									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
36	X		US 5603751 A	19970218		Method and apparatus for removing particulate material from a wood drying system	95/268
37	X		US 5598770 A	19970204		Automated feed grain processing apparatus and method	99/487
38	X		US 5551168 A	19960903		Continuous-flow grain steeping and cooling system	34/491
39	X		US 5551167 A	19960903		Continuous-flow grain steeping and cooling method and apparatus	34/491
40	X		US 5542616 A	19960806		Grain-de-acidizing process mill	241/62

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
36	34/480;		Ackerson; Ross A.									
	34/82;											
	55/327;											
	55/337;											
	55/338;											
	55/385.1;											
37	95/283;		Campbell; Thomas S. et al.									
	95/288											
38	99/516;		Van Fossen; Larry									
	99/536											
	34/168;											
	34/429;											
	34/492;											
39	34/497;		van Fossen; Larry									
	34/554											
	34/168;											
	34/429;											
	34/492;											
40	34/497;		Archer; Virgil L.									
	34/554											
	241/162;											
	241/245;											
	241/259;											
	241/259.1;											
	241/261.1;											
	241/300;											
	241/65;											
	241/DIG.30											

	U	1	Document ID	Issue Date	Pages	Title	Current OR
41	X		US 5538747 A	19960723		Method and apparatus for the continuous damping of grain	426/507
42	X		US 5487702 A	19960130		Grain weighing and measuring system	460/7
43	X		US 5479850 A	19960102		Apparatus and method for a breadmaking machine	99/357
44	X		US 5473942 A	19951212		Acoustic location fixing insect detector	73/587
45	X		US 5282389 A	19940201		Apparatus for measuring agricultural yield	73/861.73
46	X		US 5195861 A	19930323		Automatic rate matching system	414/296
47	X		US 5189812 A	19930302		Moisture sensor for a continuous flow dryer	34/565
48	X		US 5144755 A	19920908		Grain dryer control system and method using moisture sensor	34/560
49	X		US 5106339 A	19920421		Moisture monitor system and method for combine harvester	460/7
50	X		US 5102281 A	19920407		Automatic rate matching system	414/296
51	X		US 5092819 A	19920303		Method and apparatus for qualitatively measuring characteristics of grain to be harvested	460/7

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
41	118/17; 118/19; 118/303; 366/151.1; 426/231; 426/460; 426/506; 99/468; 99/483; 99/487; 99/516; 99/534		Mueller; Roman									
	42	56/10.2B; 73/73	Campbell; Ronald et al.									
	43	99/334; 99/470; 99/477	Anderson; Richard M.									
	44	367/136; 367/180	Vick; Kenneth W. et al.									
	45	460/1; 56/DIG.2; 73/861.74	Faire; Stephen M. et al.									
	46		Handke; Wayne A.									
	47	34/174; 34/175; 34/483; 34/528; 34/89	Ediger; Randall J.									
	48		Braun; Keith et al.									
	49	56/10.2R; 56/DIG.2	Braun; Keith et al.									
	50		Handke; Wayne A.									
51	56/10.2R; 56/DIG.15		Schroeder; Michael J. et al.									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
52	X		US 5004400 A	19910402		Automatic rate matching system	414/808
53	X		US 4961887 A	19901009		Batch control system and process for insulating a metallic rod	264/40.4
54	X		US 4930229 A	19900605		Method and apparatus for aeration of stored grain with proactive cooling	34/491
55	X		US 4924601 A	19900515		System for conditioning grain	34/530
56	X		US 4916830 A	19900417		Grain dryer control system and method using moisture sensor	34/550
57	X		US 4903414 A	19900227		High pressure conditioning system	34/415
58	X		US 4896795 A	19900130		Grain moisture sensor	222/63
59	X		US 4894928 A	19900123		Subterranean grain storage	34/60
60	X		US 4800765 A	19890131		Grain drill and probe mechanism	73/864.64

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
52	198/524;		Handke; Wayne A.									
	222/56;											
	414/294;											
	414/296											
	222/58;											
53	222/77;		Crumpler; Michael G. et al.									
	264/171.19;											
	264/211;											
	264/40.7;											
	366/141;											
	366/152.1;											
	366/156.2;											
	366/18;											
	366/182.4;											
	425/113;											
	425/140;											
	425/148;											
	425/297;											
	700/117											
54	34/569		Moser; Wayne A.									
55	34/538;		Bercaw; Willis M.									
	34/67;											
56	34/92		Braun; Keith et al.									
57	34/210;		White; Richard L. et al.									
	34/217;											
	34/60											
58	222/52;		Ediger; Randall J. et al.									
	324/664;											
	34/550											
59	34/218;		Bishop; William M.									
	34/516											
60	73/863.86		Nelson; Eugene E.									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
61	X		US 4800653 A	19890131		Method and apparatus for controlling the drying and cooling of field-harvested seeds in storage	34/495
62	X		US 4791817 A	19881220		Method of determination and monitoring of fuel mass stream	73/861.04
63	X		US 4750273 A	19880614		Computer controlled grain drying	34/484
64	X		US 4699519 A	19871013		Grain temperature monitor	374/111
65	X		US 4681597 A	19870721		Method for agglomerating powdered coal by compaction	44/579
66	X		US 4631482 A	19861223		Dust flow inducing monitor	324/454
67	X		US 4599809 A	19860715		Grain dryer system	34/484
68	X		US 4583300 A	19860422		Automatic grain drying system	34/557
69	X		US 4558523 A	19851217		Method and apparatus for equilibrium drying of grain	34/491

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
61	34/230;		Steffen; Sylvester L.									
	34/233;											
	34/549;											
	454/175											
62			Albertz; Theodor et al.									
63	34/560;		Parkes; Donald H. et al.									
	34/573											
64	340/519;		Persson; Glee Lynn W.									
	340/584;											
	374/166;											
	374/188											
65	44/593;		Byrne; Larry D. et al.									
	44/596											
66	340/627;		Newton; Robert E. et al.									
	73/28.01											
67	34/491;		Parkes; Donald H.									
	34/535;											
	34/89											
68	454/182		Mast; Milford S.									
69	34/495;		Isbell; Benny R. et al.									
	34/537											

	U	1	Document ID	Issue Date	Pages	Title	Current OR
70	X		US 4549960 A	19851029		System for conditioning grain and maintaining same	209/240
71	X		US 4530167 A	19850723		In-bin, controlled atmosphere, grain drying systems and the like	34/547
72	X		US 4524528 A	19850625		Wind powered grain drying apparatus	34/102
73	X		US 4509273 A	19850409		Combine grain dryer and drying attachment	34/86
74	X		US 4498418 A	19850212		Cattle car	119/408

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
70	209/244; 209/255; 209/259; 209/353; 209/371; 209/372; 209/378; 209/405; 209/414; 34/167; 34/222; 34/232; 34/491; 34/565; 426/320; 426/465; 426/486; 43/125; 454/176; 99/485; 99/646S		Hoppe; Gerald W.									
71	34/233; 34/539; 34/542; 34/548		Hotovy; James R.									
72	34/181; 414/327		Ehlers; Thomas G.									
73	110/227; 34/182; 56/12.2; 56/16.5		Roisen; David									
74	105/372		Chumley; Claude									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
75	X		US 4483256 A	19841120		Biomass gasifier combustor system and components therefor	110/210
76	X		US 4471424 A	19840911		Apparatus and method for conditioning grain	700/16
77	X		US 4462250 A	19840731		Grain moisture meter	73/73
78	X		US 4404756 A	19830920		Grain drying and conditioning apparatus	34/65
79	X		US 4376298 A	19830308		Combine data center	701/34
80	X		US 4308669 A	19820105		Advanced optimum continuous crossflow grain drying and conditioning method	34/504
81	X		US 4296409 A	19811020		Combine performance monitor	340/684
82	X		US 4295822 A	19811020		Producer gas fueled burner system and drying apparatus	432/29
83	X		US 4293854 A	19811006		Monitor means and method for grain bin	340/615

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
75	110/101CD; 110/101CF; 110/190; 110/205; 110/212; 110/214; 110/225		Brashear; Robert S.									
	34/535		Persson; Gleenynn W.									
	324/670		Stuart; John A.									
	34/169; 34/174		Noyes; Ronald T.									
	340/462; 340/684; 460/1; 56/10.2R; 701/50; 702/119; 702/184; 702/185		Sokol; David G. et al.									
	34/168; 34/174; 34/236; 34/65; 432/14		Noyes; Ronald T. et al.									
80	340/459; 340/521; 56/10.2R; 701/29; 702/182		Whitaker; Roger B. et al.									
81	110/204; 110/252; 431/9		Campbell; Crom B.									
82	73/54.23		Gookins; William L. et al.									
83												

	U	1	Document ID	Issue Date	Pages	Title	Current OR
84	X		US 4268971 A	19810526		Optimum low profile continuous crossflow grain drying and conditioning method and apparatus	34/395
85	X		US 4257169 A	19810324		Commodity dryer	34/471
86	X		US 4253244 A	19810303		Electronic control system for low temperature grain drying	34/554
87	X		US 4249891 A	19810210		Advanced optimum continuous crossflow grain drying and conditioning method and apparatus	432/14
88	X		US 4248538 A	19810203		Grain stirring apparatus and method	366/261
89	X		US 4217701 A	19800819		Bin grain dryer	34/211
90	X		US 4207684 A	19800617		Crop drying apparatus utilizing solar energy	34/93
91	X		US 4175418 A	19791127		Temperature monitoring and temperature differential control device	454/180
92	X		US 4152840 A	19790508		Grain dryer control system	34/575
93	X		US 4148147 A	19790410		Method for controlling the curing of field-harvested grains with minimum energy consumption	34/268
94	X		US 4135397 A	19790123		Level measuring system	73/290R

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
84	34/169; 34/174; 34/413; 34/65		Noyes; Ronald T. et al.									
85	34/225; 34/77; 62/432		Pierce; Jack									
86	34/233		Kranzler; Glenn A.									
87	34/171; 34/174; 432/99		Noyes; Ronald T. et al.									
88	366/287; 74/380; 74/665L		Sukup; Eugene G.									
89	34/174; 34/66; 34/67; 414/310		Mathews; Bernard C.									
90	126/569; 126/623; 34/233		Stice; J. Daniel									
91	374/112; 374/143; 454/256; 92/54		Steffen; Sylvester L. et al.									
92	414/213		Stille; Larry L.									
93	34/76; 62/176.6		Steffen; Sylvester L.									
94	324/601; 324/642; 324/643; 73/304R		Krake; Guss L.									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
95	X		US 4103292 A	19780725		Material sensing device	340/603
96	X		US 4102194 A	19780725		Electronic bin temperature monitor	374/167
97	X		US 4053991 A	19771018		Automatic control for maintaining equilibrium temperature/moisture between stored grain and atmosphere	34/565
98	X		US 4043051 A	19770823		Method and apparatus for drying grain	34/77
99	X		US 3979838 A	19760914		Fan motor safety feature for grain drying system	34/93
100	X		US 3946496 A	19760330		Control system for grain drying bin	34/575
101	X		US 3943636 A	19760316		Apparatus for drying grain	34/526
102	X		US 3935970 A	19760203		Automatic level measuring and control system for dispensing bin	222/56
103	X		US 3919784 A	19751118		Solar pre-heat chamber for grain dryers	34/93
104	X		US 3849901 A	19741126		APPARATUS FOR DRYING GRAIN	34/526
105	X		US 3807231 A	19740430		AUTOMATIC LEVEL MEASURING AND CONTROL SYSTEM	73/290R
106	X		US 3736667 A	19730605		GRAIN DRYER	34/551
107	X		US 3720131 A	19730313		BUILT-IN TEST FOR TANK FIRE CONTROL COMPUTER	89/41.03
108	X		US 3714718 A	19730206		CONTROL SYSTEM FOR GRAIN DRYING BIN	34/573
109	X		US 3692247 A	19720919		SYSTEM AND METHOD OF CONTROLLING A HIGH-DISCHARGE COMMUNUTING OR PULVERIZING MILL, SUCH AS A TUBE MILL	241/30

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
95	200/61.21;		Haas; James R.									
	250/229;											
	307/118;											
	340/606;											
	340/617;											
96	340/619		Eng; William T.									
	340/517;											
	340/598;											
	374/1;											
	374/170											
97	34/233; 34/569		Steffen; Sylvester L.									
98	34/229; 34/82		Lussenden; Delbert									
99	126/569; 55/311		Tonn; Martin H.									
100	414/161		Sukup; Eugene G.									
101	34/167		Sietmann; Vernon H. et al.									
102	222/64; 340/617		Spaw; Robert L.									
103	126/629		Tonn; Martin H.									
104	34/167		Sietmann; Vernon H. et al.									
105	73/304C		Spaw; Robert L.									
106			McClaren; Jay L.									
107	324/158.1; 327/76; 89/41.07		Frohock, Jr.; Millard M. et al.									
108			Sukup; Eugene G.									
109	241/135; 241/34; 241/63		Jager; Heinz									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
110	X		US 3641916 A	19720215		FRESH POPCORN VENDING MACHINE	99/323.7
111	X		US 3563460 A	19710216		GRAIN BIN AERATION CONTROL	236/49.3
112	X		JP 09107787 A	19970428		GRAIN STORING EQUIPMENT	
113	X		JP 08014758 A	19960119		STIRRING DEVICE FOR GRAIN STORAGE BIN	
114	X		JP 06317379 A	19941115		STORING METHOD FOR GRAIN AND ITS DEVICE	
115	X		JP 62237323 A	19871017		MEASURING INSTRUMENT FOR AMOUNT OF PARTICLES STORED IN PARTICLE STORAGE SILO	
116	X		JP 62000724 A	19870106		AIR CONTROLLING DEVICE TO BURNER	
117	X		US 20040154184 A	20040812		Grain drying method involves discharging grain from outlet to achieve target moisture content range in storage bin after taking into account the automatically determined expected cooling bin moisture reduction amount	
118	X		US 6530160 B	20030311		Treatment method for grains in bin using gas or vapor, involves gathering temperature and moisture data to be integrated with quantitative algorithm of direct differential vapor pressure analysis	
119	X		US 6362632 B	20020326		Balanced charge pump circuit for level sensor, has voltage divider connected to differential amplifier to maintain voltage at amplifier terminal proportional to upper reference voltage	
120	X		WO 200156204 A	20010802		Data multiplexing for data telemetry system, involves configuring master radio communication device among multiple devices and exchanging data between master and other communication devices	

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
110			McDevitt; James et al.									
111	236/78B; 236/78R; 327/411; 34/491; 34/569; 361/165; 454/182		Nine; Philip L.									
112			SHIMOMURA, TAKAMICHI									
113			UENO, KENJI									
114	34/552; 34/576		KANEKO, ADIRO et al.									
115			MOTOYASU, HISASHI									
116	236/1G		FUJIOKA, SADAKAZU									
117			BLOEMENDAAL, B J									
118			GOOKINS, W L									
119			LIVINGSTON, R A									
120			LADUE, C K									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
121	X		US 5960558 A	19991005		Grain drying system for use in grain bin	
122	X		JP 10108539 A	19980428		Moisture controller installed in grain storage container e.g. for rice, wheat - has ventilation control unit which stops ventilation of atmospheric air when presence of moisture is not detected by dew formation sensor	
123	X		US 4916830 A	19900417		Controller with moisture sensor for grain drying system - has drying bin, air circulator and discharge auger for removing dried particulate from bin	
124	X		US 4599809 A	19860715		Computer controlled grain dryer system - responds to moisture measured in grain and has floor separating chamber and heating plenum	
125	X		US 4293854 A	19811006		Monitoring system for grain bin - uses temp. sensor mounted on auger and moved to determine condition of bin contents	
126	X		US 4152840 A	19790508		Grain dryer control system - has sensor mounted above bin floor and thermocouple supported on block to extend through discharge tube wall	
127	X		US 4102194 A	19780725		Electronic grain storage bin temp. monitor - scans temp. sensors in bin and gives sequential temp. and location display, and alarm if preset temp. is exceeded	
128	X		US 4053991 A	19771018		Grain storage environment automatic control - has grain and air temp. sensors connected to comparator circuit controlling fan	
129	X		US 3946496 A	19760330		Grain drying bin control system - has unit with sensor in insulated housing overdischarge auger tube openings	
130	X		CA 976381 A	19751021		Stored grain temp and moisture monitor for grain bin - has dial gauge with concentric scales and independent pointers	
131	X		US 3836655 A	19740917		PRESERVATIVE COMPOSITION FOR MOIST GRAIN	514/478

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT.
121			BOURGAULT, P									
122												
123			BRAUN, K et al.									
124			PARKES, D H									
125			GOOKINS, W L									
126			STILLE, L L									
127			ENG, W T									
128												
129												
130												
131			KENSLE D et al.									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
132	X		US 3817786 A	19740618		EQUIPMENT FOR CONVERTING THE PHYSICAL AND COMPLEX MOLECULAR BOND STRUCTURES OF NATURAL FEEDSTUFFS FOR RUMINANT ANIMALS TO DIFFERENT AND LESS COMPLEX MOLECULAR BOND STRUCTURES THEREOF	127/1
133	X		US 3778521 A	19731211		PROCESS FOR THE CONTINUOUS PRODUCTION OF BULGUR	426/508
134	X		US 3746546 A	19730717		APPARATUS AND PROCESS FOR PUFFING FOOD PRODUCTS	426/445
135	X		US 3725070 A	19730403		PHOTOGRAPHIC ELEMENT COMPRISING FILM FORMING POLYMERIC SUPPORT	430/533
136	X		US 3669756 A	19720613		VEHICLE COUPLING WEIGHING DEVICE	177/136
137	X		US 3577229 A	19710504		METHOD AND APPARATUS FOR MAKING FERTILIZER	71/9
138	X		US 3555533 A	19710112		FAIL-SAFE PROXIMITY MEASURING SYSTEM	340/507
139	X		US 3553712 A	19710105		MULTIPOINT-MULTIBANK RECORDING SYSTEM	346/34
140	X		US 3526969 A	19700908		BATCH TYPE GRAIN DRYER WITH SEPARATE DRYING AND COOLING BINS	34/574
141	X		US 3519203 A	19700707		THERMO-HUMIDISTAT	236/44R
142	X		US 3511090 A	19700512		FLUENT MATERIAL LEVEL SENSOR	73/301

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
132	127/28; 127/37; 422/242; 426/312; 426/447; 426/807; 99/323.4; 99/470		ALGEO J									
133	99/516		EVANS V et al.									
134	426/294; 99/323.9		BATESON R et al.									
135	528/185; 528/190; 528/195; 528/298		HAMB F et al.									
136	177/229		BRADLEY RICHARD S									
137	435/290.2; 435/290.4; 71/10; 71/12; 71/14		BRUCK HANS-ERWIN									
138	331/65; 340/532; 340/563; 340/612; 73/304R		EDELMAN ABRAHAM									
139			PARKER KENNETH B JR et al.									
140	34/167; 34/174		ALMS ERHARD E et al.									
141	337/300; 34/553		ENGLE BRUCE W									
142	338/42		EHRENFRIED ALBERT D et al.									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
143	X		US 3507695 A	19700421		UTILIZATION OF SOUND WAVE ENERGY	134/1
144	X		US 3495457 A	19700217		MATERIAL LEVEL SENSING DEVICE	73/301
145	X		US 3484947 A	19691223		THERMOHUMIDISTAT	34/549
146	X		US 3474337 A	19691021		SYSTEM FOR SENSING LEVELS AND ELECTRICAL CHARACTERISTICS OF FLUENT MATERIALS	324/644
147	X		US 3433373 A	19690318		AUTOMATIC VEHICLE DOOR CONTROL SYSTEM	414/269
148	X		US 3416239 A	19681217		Apparatus for treating granular material	34/211
149	X		US 3408747 A	19681105		Process for conditioning grain	34/476
150	X		US 3400466 A	19680910		Method and apparatus for conditioning grain	34/483
151	X		US 3380174 A	19680430		Method and apparatus for conditioning grain	34/475
152	X		US 3350701 A	19671031		Measuring circuit employing oppositely varying voltage dependent capacitive means	340/870.42
153	X		US 3339760 A	19670905		Grain bin level filler	414/302
154	X		US 3329349 A	19670704		Apparatus for pulverizing plastic materials	241/34
155	X		US 3274699 A	19660927		Upright crop dryer	34/575
156	X		US 3264118 A	19660802		Process for the treatment and preservation of grain quality during storage	426/419
157	X		US 3237451 A	19660301		Volumetric measurement system	73/149

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
143	134/17; 134/6		SAWYER HAROLD T									
144			HAGE WILLIAM T et al.									
145	200/61.06; 337/3		ENGLE BRUCE W									
146	340/620; 73/290R; 73/304R		PETRICK JOSEPH R									
147	105/240		CAREY ANDREW J et al.									
148			LOUKS ROBERT A									
149	34/492		STEFFEN SYLVESTER L									
150	222/54; 34/174; 432/17; 432/43; 432/46; 432/99		MCCLAREN JAY L									
151	34/169		MCCLAREN JAY L									
152	324/611; 324/680; 324/683; 340/870.37; 340/870.38		BELL NORTON W									
153	198/582; 198/601; 198/608		LOUKS ROBERT A									
154	241/109; 241/16; 241/65		JOSEF PASTEKA									
155	34/174; 34/65		NAYLOR STRAUT W									
156	34/468; 34/493		KILCREASE JACK W et al.									
157	73/290B		HAEFF ANDREW V									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
158	X		US 3208234 A	19650928		Air cycle refrigeration system and method	62/172
159	X		US 3199353 A	19650810		Grain temperature sensing device	374/155
160	X		US 3176618 A	19650406		Rocket motor construction and fabrication process	60/39.47
161	X		US 3142479 A	19640728		Control for an air heater	432/37
162	X		US 3081429 A	19630312		Ingredient content determination	324/667
163	X		US 3056214 A	19621002		Portable batch type dryer	34/530
164	X		US 3033363 A	19620508		Reagentizing solids for flotation separation	209/9
165	X		US 3014371 A	19611226		Temperature measuring and indicating means	374/165

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
158	165/104.31; 165/145; 165/146; 62/119; 62/203; 62/241; 62/272; 62/333; 62/402		MESSINGER BERNARD L									
159	374/183; 73/864.74		ROBERT BURNIGHT THOMAS									
160	102/284; 156/197; 264/3.1; 53/558; 60/253; 86/1.1		FORSBERG RICHARD P et al.									
161	236/44R; 431/66; 431/80; 432/222		BARTLETT PETER G et al.									
162	235/61A; 324/670; 324/689; 73/335.04; 73/73		MOE LOWELL A									
163	34/174		ANDERSEN JR ARTHUR									
164	209/10; 209/166; 209/5; 241/24.13		DAVID WESTON									
165	374/167; 73/76		MCCONNELL GEORGE T									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
166	X		US 3004662 A	19611017		Foreign body detector	209/548
167	X		US 2999676 A	19610912		Grain conditioning apparatus	432/222
168	X		US 2978581 A	19610404		Radiant energy detection device	250/357.1
169	X		US 2944177 A	19600705		Electroluminescent cell and method of making the same	313/502
170	X		US 2919580 A	19600105		Temperature measuring and indicating means	374/166
171	X		US 2865110 A	19581223		Vibrating shelf-type drier	34/86
172	X		US 2858620 A	19581104		Apparatus for conditioning grain	34/575
173	X		US 2816442 A	19571217		Temperature indicating system	374/188
174	X		US 2796455 A	19570618		Thermocouple unit for grain temperature measuring equipment	136/224
175	X		US 2477627 A	19490802		Disintegrator having means for recirculating fluid currents from the material discharge hopper to the disintegrator chamber	241/48

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
166	209/550; 209/599; 209/653; 73/655		ARMSTRONG GEORGE W et al.									
167	236/44R		EWING EWELL F									
168			WEHRLI ROBERT L									
169	313/511; 313/512; 315/169.3		PIPER WILLIAM W									
170	374/165; 374/183		MCCONNELL GEORGE T									
171	34/164		PERKJAS PHILIP R									
172	34/102; 34/174		NAYLOR STRAUT W									
173	374/194		BURTON JAMES R									
174	136/229; 136/232; 174/103; 174/72A; 174/72R; 338/212; 338/26; 439/913		JONES CLAIR E									
175	241/100; 241/188.1; 241/49; 241/51; 241/55; 241/69; 241/86		LANTER CLARENCE W									

	U	1	Document ID	Issue Date	Pages	Title	Current OR
176	X		US 2473531 A	19490621		Disintegrator rotor for hammer mills and the like	241/191
177	X		US 2408810 A	19461008		Method and apparatus for preparing coal for coking	241/17
178	X		US 2351419 A	19440613		Building construction	52/222
179	X		US 2183274 A	19391212		Apparatus for treating loose flowable material	34/545
180	X		US 2040600 A	19360512		Method of and apparatus for treating grain for extermination of insect life therein	43/138
181	X		US 2006265 A	19350625		Method of and apparatus for treating grain for extermination of insect life therein	43/138
182	X		US 1423830 A	19220725		Rice-preservation process	426/318

	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3	4	5	Image Doc. Displayed	PT
176	241/100; 241/48; 241/51; 241/55; 241/86		LANTER CLARENCE W									
177	202/262; 202/96; 209/11; 209/474; 241/43; 241/65; 34/167		FRANZ PUENING									
178	403/173; 52/204.1; 52/223.6; 52/248; 52/516		BUCKMINSTER FULLER RICHARD									
179	222/56; 34/102; 34/170		HERBERT BARNSDALE FREDERICK									
180	313/325; 313/353; 315/76; 47/1.3	J	DAVIS JESSE H									
181	43/125; 47/1.3; 65/DIG.4		DAVIS JESSE H									
182	99/477; 99/483; 99/536		IVER CHRISTENSEN SANDER									

	Search Terms
1	WIETING-MEL
2	WIETING-MELS
3	WIETING-TERRIES
4	WIETING-TERRY
5	WIETING-TERRYS
6	((WIETING-MEL.IN.) OR (WIETING-TERRY.IN.))

	Total	US-PGPUB	USPAT	USOCR	EPO	JPO	Derwent	IBM TDB
1	0							
2	0							
3	0							
4	0							
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6	0							